



The Inside Q

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This newsletter is published each month. The office address is:

ASQ Section 0915
The 2425 Building Suite 402
2425 U.S. Highway 41 North
Evansville, IN 47711

Distribution of this newsletter is sent by email to all members of the local section as listed by the national office.

Newsletter Chair:
Brian Wilson
asq0915newslettereditor@gmail.com

Please contact me with information that you would like to include in the next newsletter.

The local section information is located at:

**Evansville/Owensboro
Section 0915 Web Site:**
<http://www.asq0915.com/>

ASQ National Web Site:
<http://www.asq.org>

December Newsletter

Dinner Meeting Agenda



- DATE:** Tuesday, December 8, 2015
- TOPIC:** Your Problem Statement Is The Problem
- PRESENTER:** Mike Mazu
- LOCATION:** Riviera Grill, Newburgh, IN
- TIMES:** 5:30 pm Register & Network
6:00 pm Dinner
7:00 pm Presentation
- COST:** **\$17 per member**
- RSVP:** Please make reservations **by noon Friday, December 4th** by sending an email to Tom Watson at tom.watson@kimballelectronics.com.

Dinner accommodations cannot be guaranteed for reservations received after the 12-noon deadline date.

Please note:

If you make a reservation and do NOT show up, the section has to pay for your dinner!

Mission:

Promote Quality and provide value to our membership and local businesses by continual improvement of information and services, meeting content, and training/education.

In The Q- 2015

Website Updates!

Check out our Section 915 website <http://www.psci.net/asq915> for information about our section and upcoming section events, training and more.

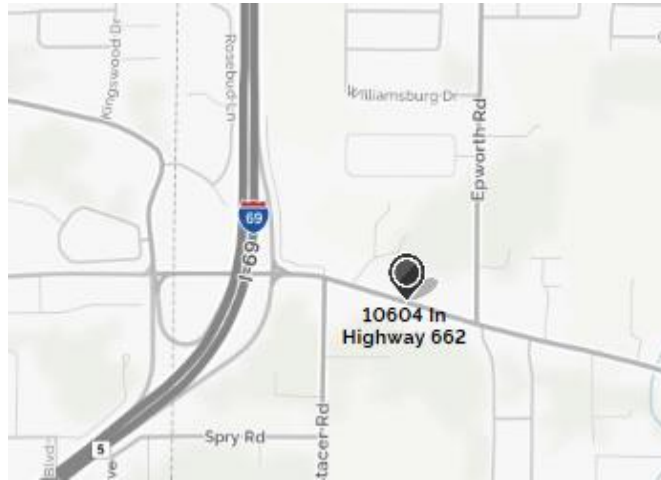
We welcome our new members and hope to see you at a dinner meeting soon.

Directions to:

Riviera Grill, 10604 In-662, Newburgh, IN

From I-69 exit 5

- Turn East for about 0.25 mile.
- Cancun is on the left.



Future Dinner Meetings

Date	Topic	Location	Presenter
1/12/2016	Root Cause Mapping	Schnitzelbank	Rex Burdette
2/9/2016	Joint APCIS Meeting	Haubstat	
3/8/2016	Calibration and ISO 17025	Colby's Steakhouse"	Brandon Huff
4/12/2016	Jasper Rubber Plant Tour	Jasper Rubber /Schnitzelbank	Jasper Rubber Staff
5/10/2016	Auction	Evansville	

Future Board Meetings

Location: The 2425 Building Board Room, 2425 U.S. Highway 41 North, Evansville, IN 47711

6 pm on the following dates: January 7, February 4, and March 3.

Note: some of the meetings are GOTO MEETING. If you are interested in attending, contact a board member to see if the particular meeting is in person or over the internet.

CERTIFICATION TEST SCHEDULE

Test Date: 12/5/2015 Application Date: past
Calibration Technician, Pharmaceutical GMP Professional, Quality Auditor, Quality Engineer,
Quality Improvement Associate, Quality Process Analyst, Six Sigma Greenbelt, Software Quality Engineer

Test Date: 3/5/2016 Application Date: 01/15/16
Biomedical Auditor , HACCP Auditor, Manager of Quality, Quality Inspector, Quality Technician,
Reliability Engineer, Six Sigma Blackbelt, Six Sigma Yellow Belt

The dates above are for the local certification exams. Late applications have an extra \$50.00 charge.
Exams are held at Ivy Tech Community College, Evansville, IN Room 259.

If you miss a test due to weather, notify the Examiner or National so that you can reschedule without losing the test fee.

Contact Cleat Smerchek at
for more information see

csmerchek@hansen-motor.com
<http://www.asq.org/certification/>

SECTION 0915 PLACEMENT SERVICE

Job Seekers - if you would like to be placed on a confidential email distribution list to be notified of job opportunities made known to the ASQ Section 0915 Placement Chair, please contact Placement Chair:

David McGan, McGan Business Solutions,
53 Dorsey St., Corydon, KY 42406
dmcgan@mcgangroup.com
270-823-2831

For national job postings, see:

<http://www.asq.org/career/index.html>

Job Providers - if you have a job opening that you would like distributed to those on the ASQ Section 0915 Placement Distribution list, send a detailed description of the job, including location, and **appropriate contact information**, to:

dmcgan@mcgangroup.com
270-823-2831

Those interested in learning more about your opportunity may then contact you directly.

RE-CERTIFICATION:

Re-certifications may be sent to:

Michael Gross
2943 Meadowland Dr.,
Owensboro, KY 42303
Smoky1001@yahoo.com
FAX: 270 730 6730

Please submit at least three weeks prior to the recertification/test dates above.

If a recertification application was due on 7/31/2014, there is a six-month grace period. Send the information to Michael Gross **ASAP** in order to retain the certification without re-testing.

Please send the information to Michael Gross ASAP to allow him time to review it and send the information to National.

Any questions can be directed to the e-mail above.

MJM Associates
Michael J. Mazu, Principal Consultant

MJM Associates are consultants in process management. Michael J. Mazu has over forty six years experience with two Fortune 100 companies (BF Goodrich and Alcoa) in applying design of experiments, statistical process control, problem solving, six sigma and lean techniques, acceptance sampling concepts, gage and process capability, measurement assurance, process management, total quality management, quality improvement techniques and quality engineering in an industrial environment. His experience has involved over 150 manufacturing plants in the United States, Canada, Mexico, Brazil, Great Britain, France, Germany, Russia, Hungary, Australia and China.

The objectives of MJM Associates are:

- To provide concentrated consulting and training to help organizations manage their processes.
- To understand the needs of the client and custom design a consulting and training program to achieve their needs.

For more information, contact Michael Mazu at:
812-853-9443 (H) or 812-459-9303 (M)

pmazu@roadrunner.com

<http://sites.google.com/site/mjmassociatesinc/home>



Evansville-Owensboro ASQ Section 915 2015 FALL (Aug.-Dec.) Workshops and Classes



Shown below is the education offerings with a brief description for the Fall 2015 (August-December) session. These details can be viewed at <http://www.psci.net/asq915/education.htm> . Please take the time to review this opportunity and if possible attend one of these training opportunities. Please pass this information onto others in your organization that you think may have an interest in these courses. If you don't see a course or topic that you have an interest in, please contact me and I will see what I can do for you.

Michael J. Mazu, Education Chair at pmazu@roadrunner.com or **812-459-9303**.

Fall, 2015 – Instructor Led Courses

Course	Total # Hours	Cost	Description
Evaluating and Interpreting Process Capability Starts Dec 12, 2015	4	\$50	The objective of this interactive workshop is to provide the individual with a working knowledge of how to evaluate a process for capability and to determine the next steps for process improvement. Topics covered will include: steps in determining process capability, performing a potential study analysis, performing a short term study analysis, performing a long term study analysis, and interpreting the results of a capability study in order to improve the performance of the process. Individuals will also be shown how to use Minitab to calculate the capability of a process and the various capability indices.
Evaluating and Gage Process Capability Starts Dec 5, 2015	4	\$50	The objective of this interactive workshop is to provide the individual with a working knowledge of how to evaluate the capability of a gage or measuring system. Topics covered will include: methods for analyzing gage capability studies, estimating accuracy, estimating repeatability and reproducibility, AIAG method, analyzing a potential study, analyzing a short term study, analyzing a long term study, and interpreting the results. Examples will be used throughout the session so that individuals can interactively participate in interpreting the results . The course will stress how to interpret the results in order to improve the measuring system. Individuals will also be shown how to use Minitab to calculate the capability of a gage and the various capability indices.

Introduction To Process Management Starts TBA	16	\$200	<p>The course will begin by discussing the concepts of process management, responsibilities of management, and a general deployment model. The course will concentrate on the significant phases of deployment. The first phase is to identify the customer and business requirements, the key performance indicators, the goals and objectives of the organization and the key processes.</p> <p>The second phase we measure the current performance of the process. In the third phase we analyze the current performance of the process to determine current control and capability of the process. In the fourth phase we develop and deploy process control in order to manage the process on an on-going basis.</p> <p>In the fifth phase we focus on improving the performance of the process. In the sixth phase is where the organization institutionalizes the process control activities to sustain the process in control and capable.</p> <p>A case study will be presented throughout the course to illustrate the various concepts and activities of process management. This course should be considered basic to immediate. A training manual with over 170 pages is included.</p>
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Individual Self Paced Courses:

Course	Cost	Date and Time
Certified Quality Technician Review (all Modules)	\$75	At your convenience and all materials will be provided after paying the course fee.
Course Description	See the course description for the instructor led CQT course. Self paced courses provide the same materials but have no specific start and end dates – you do the work at a time convenient to you.	

Course	Cost	Date and Time
Certified Quality Engineer Review (all Modules)	\$150	At your convenience and all materials will be provided after paying the course fee.
Course Description	See the course description for the instructor led CQE course. Self paced courses provide the same materials but have no specific start and end dates – you do the work at a time convenient to you.	

Course	Cost	Date and Time
Statistics Review For ASQ Certification Exams	\$100	At your convenience and all materials will be provided after paying the course fee.
Course Description	See the course description for the instructor led Statistics Review For ASQ Certification Exams course. Self paced courses provide the same materials but have no specific start and end dates – you do the work at a time convenient to you.	

Course	Cost	Date and Time
Practical Problem Solving	\$50	At your convenience and all materials will be provided after paying the course fee.
Course Description	See the course description for the instructor led Practical problem Solving course. Self paced courses provide the same materials but have no specific start and end dates – you do the work at a time convenient to you.	

Course	Cost	Date and Time
Statistical Process Control	\$75	At your convenience and all materials will be provided after paying the course fee.

Course Description	See the course description for the instructor led SPC course. Self-paced courses provide the same materials but have no specific start and end dates – you do the work at a time convenient to you.
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Course	Cost	Date and Time
Introduction To Process Management NEW	\$75	At your convenience and all materials will be provided after paying the course fee.

Course Description	See the course description for the instructor led Introduction To Process Management course. Self-paced courses provide the same materials but have no specific start and end dates – you do the work at a time convenient to you.
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Note:

(1) These courses are also available for on-site training (days or evenings). Our instructors will come to your company to train a group of 5 or more. We will customize the course to meet your needs and it will save you travel time. The courses will be provided at the above costs plus travel expenses for the instructor. Please contact M. J. Mazu for more details.

(2) **The minimum number of individuals per Instructor Led course is 5.**

(3) For the courses that have modules, you may sign up for all modules or you may sign up for 1 or more modules.

Questions about the upcoming courses or on-site training, please contact M. J. Mazu at pmazu@roadrunner.com or 812-459-9303.

Registration

Please check the course(s) for which you are registering (Course descriptions can be viewed at <http://www.psci.net/asq915/education.htm>).

For the courses that have modules, you may sign up for **all modules** or you may sign up for **1 or more modules**.

Please check the Instructor Led course(s) for which you are registering.

- | | |
|--------------------------|---|
| <input type="checkbox"/> | Evaluating and Interpreting Gage Capability, \$50 , starts Saturday, December 5, 2015, 8am-12pm, finishes the same day. The course text is instructor developed manual and handouts. |
| <input type="checkbox"/> | Evaluating and Interpreting Process Capability, \$50 , starts Saturday, December 12, 2015, 8am-12pm, finishes the same day. The course text is instructor developed manual and handouts. |

Please check the Individual Self Paced course(s) for which you are registering.

- | | |
|--------------------------|--|
| <input type="checkbox"/> | Certified Quality Technician (CQT) Review (all Modules), \$75 (with all materials) |
| <input type="checkbox"/> | Certified Quality Engineer Review (CQE) (all Modules), \$150 (with all materials) |
| <input type="checkbox"/> | Statistics Review For ASQ Certification Exams Review (all Modules), \$100 (with all materials) |
| <input type="checkbox"/> | Practical Problem Solving (all Modules), \$50 (with all materials) |
| <input type="checkbox"/> | Statistical Process Control (SPC), \$75 (with all materials) |
| <input type="checkbox"/> | Introduction To Process Management, \$75 (with all materials) |

Name: _____ ASQ Member # (if a member): _____
Company: _____ Home Phone: _____
Mailing Address: _____ Business Phone: _____
City/State/Zip: _____ Email: _____
Do you have any special requirements of which we should be aware?

Make Checks Payable to Evansville-Owensboro ASQ Section 915

Send the completed registration form and payment to M. J. Mazu, 5311 Woodridge Dr, Newburgh, IN 47630

Course Cancellation Policy:

1. Substitutions can be made at any time.
2. Cancellations can be made up to the published registration deadline with no penalty. Registrants who fail to attend will be liable for the entire course fee.
3. The Evansville-Owensboro section reserves the right to cancel any course prior to the start of the course for any reason with full refund.
4. The minimum number is five (5) registrants for an advertised course. **The cutoff date for registration is one (1) week prior to the course start date.** Registrants will be notified prior to the first class if the minimum attendee requirement has not been reached.

All courses will meet at (unless noted differently):
2425 Building (Room 500 Conference Room)
Corner of Hwy 41N and Diamond Ave Evansville, IN

All Courses available to ASQ members and non-members
Questions about the courses please contact M. J. Mazu at
pmazu@roadrunner.com or 812-459-9303

ASK MIKE

The purpose of this column is to help local ASQ members better understand the Society, the local section, the philosophy of total quality management and the tools of quality by allowing section members to send or give questions to Mike. You can contact Mike by calling (812)-459-9303 or writing to 5311 Woodridge Dr., Newburgh, IN 47630 or Email to pmazu@roadrunner.com.

Q. If you collect samples for a capability study in such a way that there is no rationale or significance in the way that the samples were selected, then would it be invalid to use the Rbar/d2 method? For example, unless there is rational subgrouping such as if I were to select 5 parts per box or shift or even 5 parts per hour, then in this case it seems to make sense to use the Rbar/d2 method. But if I just collect 30 consecutive parts or just grab 30 pieces that does not have any rational subgrouping, then should we only use Cpk based on a “sample standard deviation method such as “stdev.s” as in Excel 2010?

The Rbar/d2 method can only be used if the data is collected initially in time order and in rational subgroups. You can test for normality but there is no way to evaluate for control (you have no time order). If you collect 30 consecutive pieces (and maintain the time order) you can test for normality and construct an individual-moving range control chart to check for control. If you grab 30 pieces at random after the process (say in the warehouse), you can test for normality but you cannot evaluate for control (you cannot even use the individual moving range control charts) since you have lost the ability to order the data by time.

Q. In the AIAG MSA 3rd edition, have the K1, K2 and K3 factors changed from the previous editions? I am getting reports from my customers that the K factors are different.

I have the 1st and 3rd edition of AIAG MSA (Measurement Systems Analysis) manuals. The factors have not changed but they appear to be different. The following table compares AIAG MSA Edition 1 to AIAG MSA Edition 3 for K1 and K2. It should be noted that a table comparing K3 values between the two AIAG MSA editions would show the same differences.

	MSA Ed 1	MSA Ed3	MSA Ed 1	MSA Ed3
n	K₁	K₁	K₂	K₂
2	4.56	0.8862	3.65	0.7071
3	3.05	0.5908	2.70	0.5231

The difference between the K values between the two editions is a multiplying factor equal to 5.15. At one time it was common practice to multiply the repeatability and reproducibility estimates by 5.15. The multiplying factor 5.15 represents 99% of the area under a normal distribution. Later many individuals wanted the multiplying factor to be 6.00 (this represents 99.73% of the area under a normal distribution). In addition, it is common when estimating the process variation to multiple that estimate by 6.00.

It should be noted that many statistical software packages, such as Minitab set the multiplying factor at 6.00, by default, but you can go to options and change it to 5.15. The major reason for the multiplying factor is to compare the repeatability and the reproducibility to either the customer tolerance range or the total process variation in order to calculate the contribution of the test error to the specification range and/or the total process variability. This is illustrated below using a typical output table from Minitab.

Source	StdDev(SD)	Study Var (6*SD)	%Study Var. (%SV)	%Tolerance (SV/Tolerance)
Total Gage R&R	0.660637	3.96382	67.83	66.06

Repeatability	0.646644	3.87986	66.39	64.66
Reproducibility	0.135251	0.81150	13.89	13.53
Part to Part	0.715623	4.29374	73.48	71.56
Total Variation	0.973939	5.84363	100.00	97.39

The real problem is: Are we all using the same edition of AIAG MSA and/or are we using the same multiplying factor???? I know the AIAG MSA 4th edition came out in 2010, but I don't have a copy so I don't know what changes were made to the K values, if any. I believe the changes to how the K1, K2 and K3 factors happened in the AIAG MSA 2nd edition.

Advertise in the News On Quality

- ✓ Support Section 0915
- ✓ Reach hundreds of Quality Professionals each month

Size	Approx. Size	Cost per Year	Cost per Issue
Full Page	7.5" x 10"	\$320	\$45
Half Page	7.5" x 5"	\$210	\$35
Quarter Page	3.5" x 5"	\$110	\$25
Eighth Page	3.5" x 2.5"	\$60	\$15

The ad will also appear on Section 0915 web page

NOT GETTING THE EMAIL MEETING NOTICES?

Have you moved, changed jobs, or changed your email address? Help us keep you informed of Section events and information by updating your contact information at www.asq.org. Log in and click on Change Address to update your membership record

TO CHANGE YOUR ASQ EMAIL ADDRESS:

Sign on to <http://www.asq.org>

At the top of the page, click Log-In

Type in your membership number and ID. If you don't have an account setup, fill in your membership number in both the account number and password fields.

Click on My Account and then Email Preferences. Make sure the third line

ASQ Section Communication

has the first radio button lit up. If not, select the first button.



ASQ
 Evansville-Owensboro Section 0915
 The 2425 Building
 2425 U.S. Highway 41 North - Suite 402
 Evansville, IN 47711



Position	Name	Organization	Phone	Email
Executive Committee 2015				
Section Chair	David McGan	MBS-McGan Business Solutions	(270) 823-2831	dmcgan@mcgangroup.com
Vice Chair	vacant			
Secretary	Brian Wilson	First Call Quality	(812) 618-5234	asq0915newslettereditor@gmail.com
Treasurer	Willy Zech	Kimball Electronics	(812) 634-4143	willy.zech@kimballelectronics.com
Committee Chairs 2015				
Arrangements	Tom Watson	Kimball Electronics	(812) 630-5321	tom.watson@kimballelectronics.com
Auditing	Vicki Snodgrass	Alcoa		Vickie.Snodgrass@alcoa.com
Certification	Cleat Smerchek	Hansen Corporation	(812) 385-1506	csmerchek@hansen-motor.com
Education	Mike Mazu	MJM Associates	(812)-459-9303	pmazu@roadrunner.com
Examining	Cleat Smerchek	Hansen Corporation	(812) 385-1506	csmerchek@hansen-motor.com
Historian	Jim Bakke	Allstate Tower, Inc.	(270)748-1425	Jimbakke1@gmail.com
Nominating Chair	Brian Wilson	First Call Quality	(812) 618-5234	bwilson@fcqs.com
Internet Liaison	Roger Stanley	Kimball Electronics	(812)309-3830	roger.stanley@kimballelectronics.com
Membership	Jim Bakke	Allstate Tower, Inc.	(270) 748-1425	jimbakke1@gmail.com
Newsletter	Brian Wilson	First Call Quality	(812) 618-5234	asq0915newslettereditor@gmail.com
Placement	David McGan	MBS-McGan Business Solutions	(270) 823-2831	dmcgan@mcgangroup.com
Publicity	Don Hoke	Hansen Corporation	(812) 385-1414	dhoke@hansen-motor.com
Recertification	Mike Gross	DSSA	(270) 274 2600	Smoky1001@yahoo.com
Scholarship	David McGan	MBS-McGan Business Solutions	(270) 823-2831	dmcgan@mcgangroup.com
Region 9 Representatives				
Director	Bud Newton	Alcoa	(812)-708-0077.	Bud.Newton@alcoa.com
Deputy Director	Michael Beyer	Siemens PLM Software	(513) 576-7665	michaelbeyer@siemens.com
Deputy Director	Michael Merry	AGC	(270) 792-3124	michaelemerry@att.net
Deputy Director	Mollie Brown		(812) 523-5547	molliemc2001@hotmail.com
Deputy Director	Dick McKeever		(513) 984-0047	d2quality@earthlink.net
Deputy Director	Kelly Roggenkamp	Humana	(502) 931-2797	Kelly.roggenkamp@gmail.com